

# REL-PR3-230AC/3X21 - Single relay



2903705

<https://www.phoenixcontact.com/us/products/2903705>

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Plug-in high-power relay with power contacts, 3 changeover contacts, coil voltage: 230 V AC



## Commercial data

Item number	2903705
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	CK6193
Catalog page	Page 312 (C-5-2019)
GTIN	4046356759175
Weight per piece (including packing)	84.5 g
Weight per piece (excluding packing)	84.5 g
Customs tariff number	85364900
Country of origin	PL

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## Technical data

### Notes

General	The outputs are not suitable for switching different outer conductors.
General	Do not use to separate SELV / PELV circuits from other circuits, because safe isolation is not guaranteed.

### Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	approx. $10^7$ cycles

### Insulation characteristics

Insulation	Basic insulation
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### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

### Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	2.76 W
Test voltage (Winding/contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., changeover contact/changeover contact)
Rated insulation voltage	250 V AC
Rated surge voltage	4 kV

### Input data

#### Coil side

Nominal input voltage $U_N$	230 V AC
Input voltage range	195.5 V AC ... 253 V AC (20 °C)
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at $U_N$	12 mA
Input power dissipation for $U_N$	2.8 W
Typical response time	5 ms ... 25 ms (depending on phase relation)
Typical release time range	5 ms ... 20 ms (depending on phase relation)
Coil resistance	7080 $\Omega$ $\pm$ 15 %

### Output data

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## Switching

Contact switching type	3 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	440 V AC 250 V DC
Minimum switching voltage	10 V (At 24 mA)
Limiting continuous current	16 A
Maximum inrush current	50 A (20 ms, N/O contacts)
Min. switching current	10 mA (at 24 V)
Interrupting rating (ohmic load) max.	384 W (at 24 V DC) 124 W (at 48 V DC) 108 W (at 60 V DC) 52 W (at 110 V DC) 70 W (at 220 V DC) 4000 VA (for 250□V□AC) 4000 VA (at 440 V AC)
3-phase motor load	1500 W (at 400 V, AC3)
Motor load according to UL 508	1/3 HP, 120 V AC (single-phase AC motor) 1/2 HP, 240 V AC (single-phase AC motor) 1/2 HP, 240 V AC (three-phase induction motor)

## Connection data

Connection method	Plug-in connection
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## Dimensions

Width	38.6 mm
Height	36.1 mm
Depth	45.5 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	RT I
Degree of protection (Installation location)	≥ IP54 (Installation location)
Ambient temperature (operation)	-40 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m

## Approvals

### Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group EN 60068-2-60
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## Standards and regulations

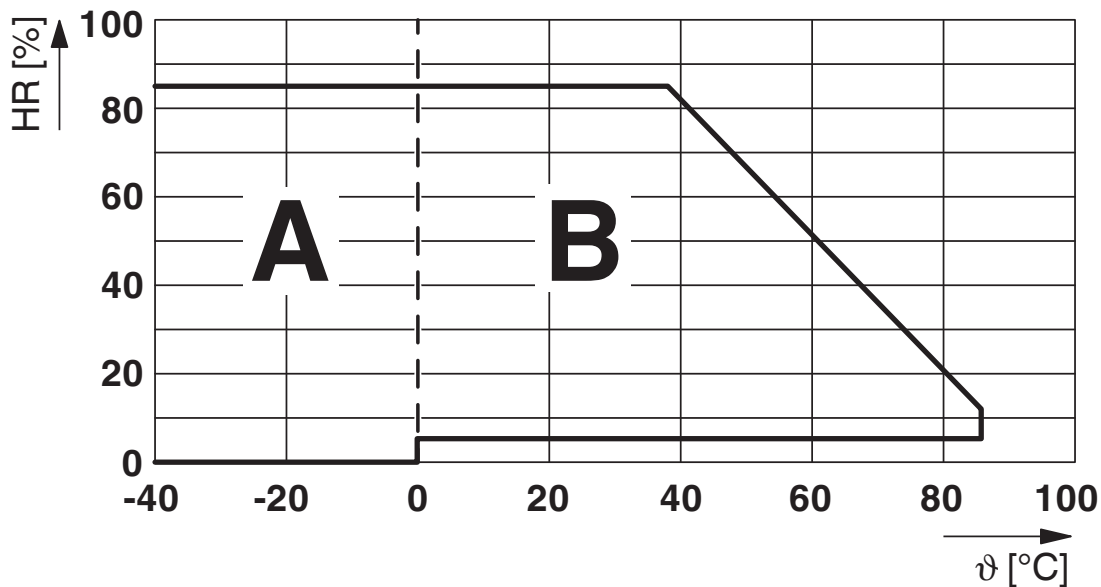
Standards/regulations	IEC 60664
	IEC 61810

## Mounting

Mounting position	any
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## Drawings

Diagram



Permissible humidity for operation and storage.

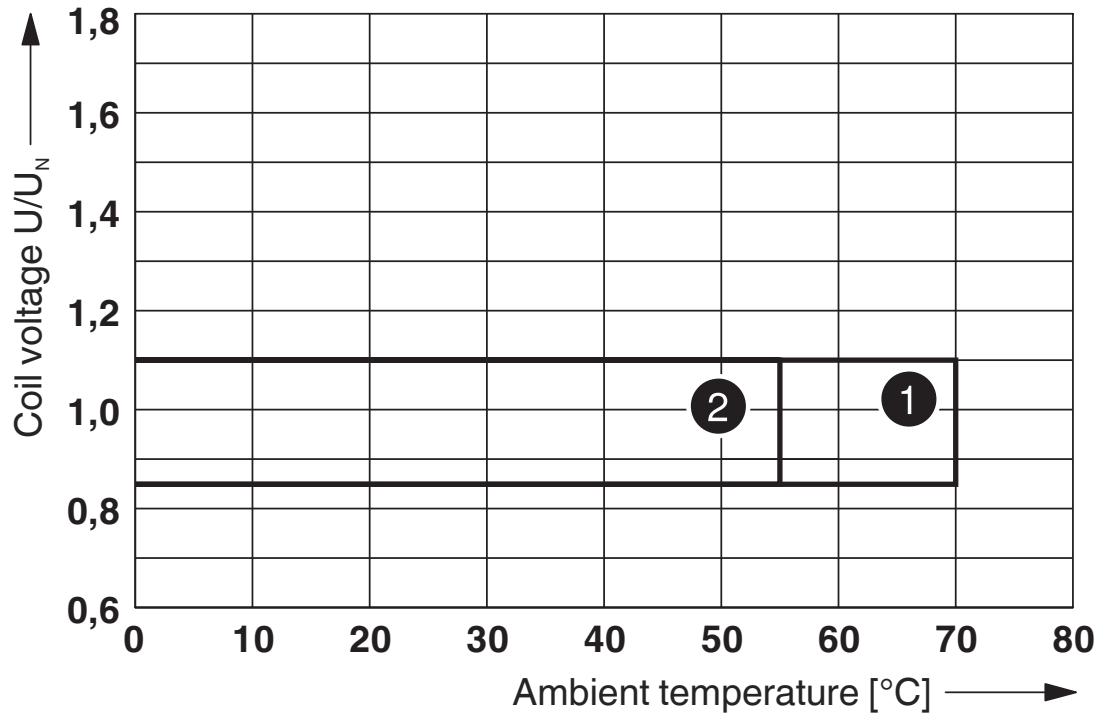
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^\circ\text{C}$  must be prevented

Area B: Condensation at ambient temperatures  $> 0^\circ\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^\circ\text{C}$ .

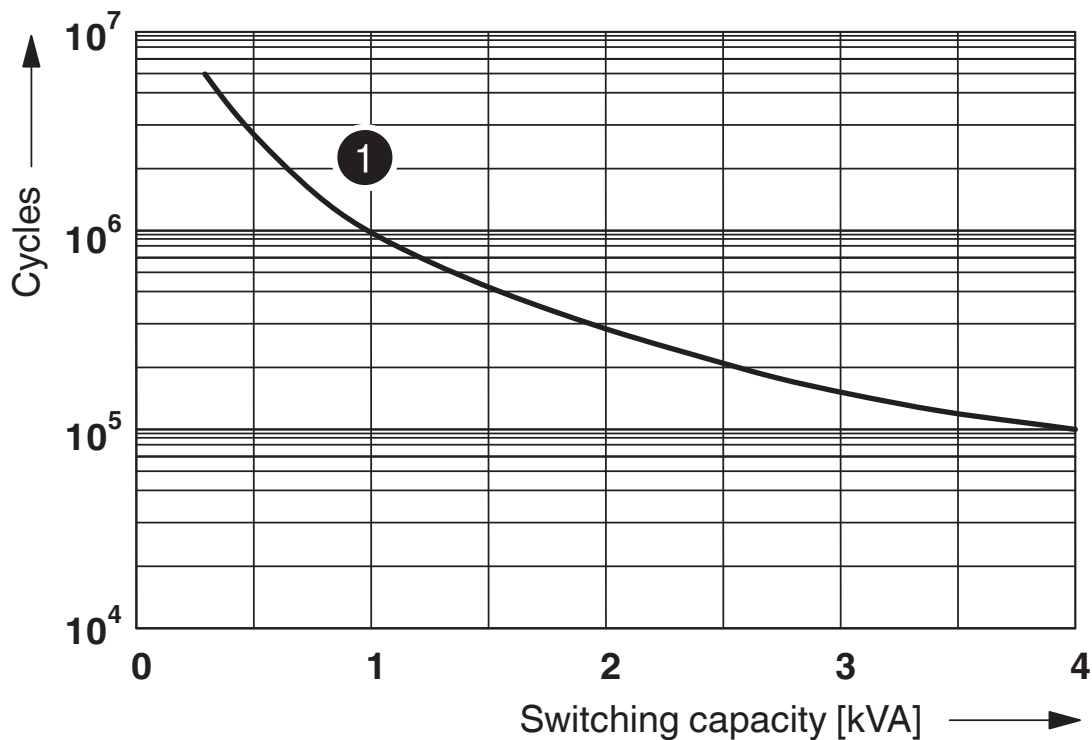
Diagram



- ① DC coils
- ② AC coils

Operating voltage range

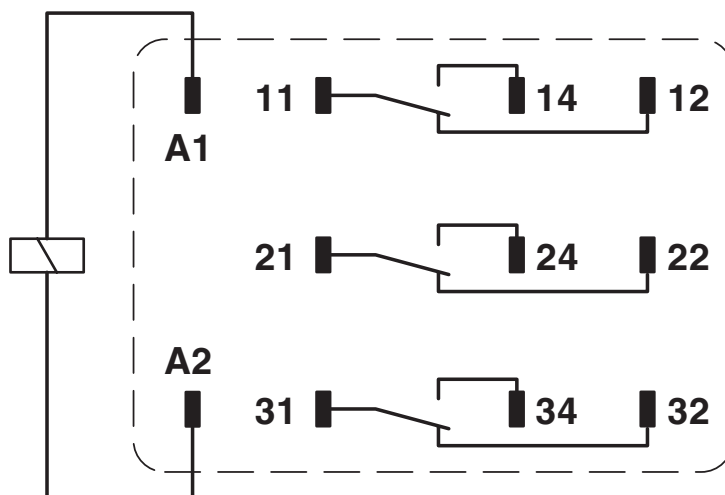
Diagram



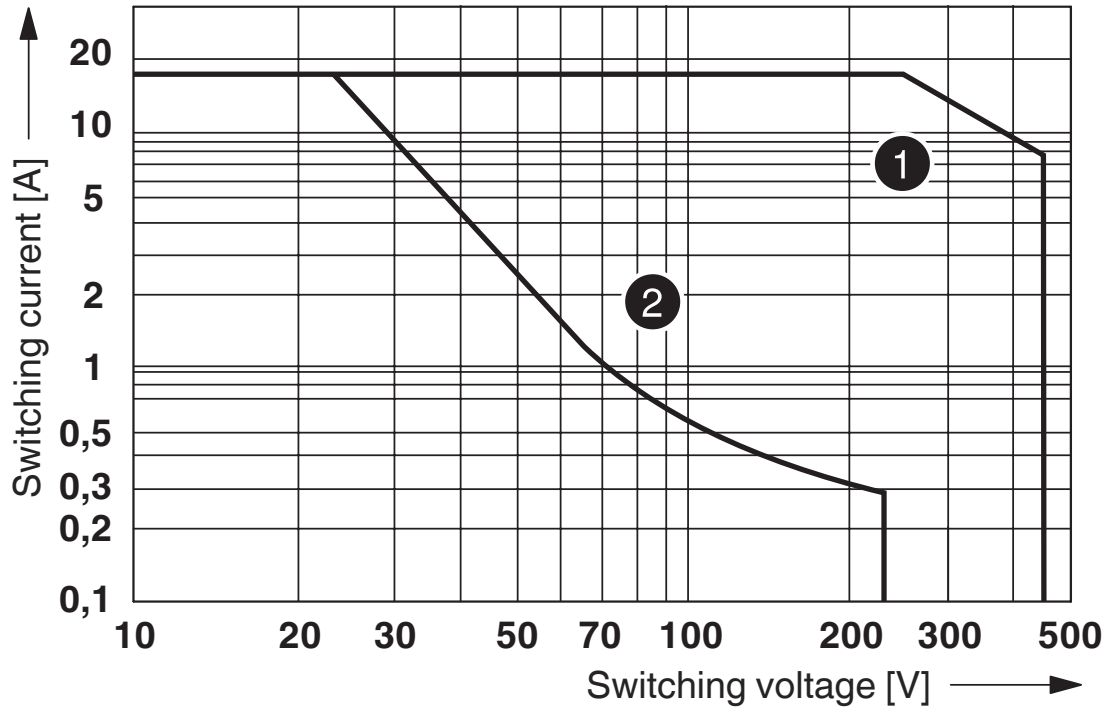
① 250 V AC, Ohmic load

Electrical service life

Circuit diagram



Diagram

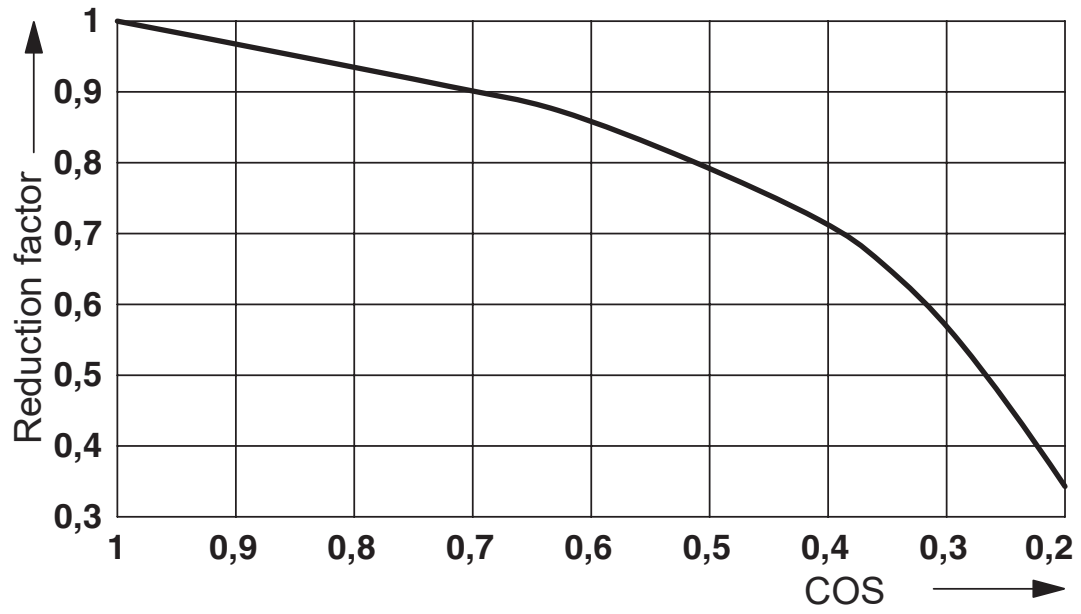


- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating



Diagram



Service life reduction factor

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903705>



**CSA**

Approval ID: 256725



**cUL Recognized**

Approval ID: FILE E 172140



**UL Recognized**

Approval ID: FILE E 172140



**EAC**

Approval ID: TR\_TS\_D\_00573\_c



**EAC**

Approval ID: RU\*C-DE.\*08.B.00010

**cULus Recognized**

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## Classifications

### ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

### ETIM

ETIM 9.0	EC001437
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### UNSPSC

UNSPSC 21.0	39122300
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## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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